



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

09/577,224

05/23/2000

Lundy Lewis

019287-0317296

4214

909

7590

06/03/2009

PILLSBURY WINTHROP SHAW PITTMAN, LLP
P.O. BOX 10500
MCLEAN, VA 22102

EXAMINER

ENGLAND, DAVID E

ART UNIT

PAPER NUMBER

2443

MAIL DATE

DELIVERY MODE

06/03/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 09/577,224	Applicant(s) LEWIS, LUNDY	
	Examiner DAVID E. ENGLAND	Art Unit 2443	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 April 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1, 3 – 6 and 23 – 36 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 3 – 6 and 23 – 36 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. Claims 1, 3 – 6 and 23 – 36 are presented for examination.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. **Claim 1 is rejected under 35 U.S.C. 103(a) as being unpatentable over Maccabee et al. (6108700) (hereinafter Maccabee) in view of Roytman et al. (6356282) (hereinafter Roytman) in further view of Medhat et al. (6314103) (hereinafter Medhat).**

4. As per claim 1, as closely interpreted by the Examiner, Maccabee teaches a method for managing a network service associated with a service level management domain to provide service level management, wherein the network service supports one or more business processes under service level management, the method comprising:

5. monitoring operational characteristics of a plurality of devices coupled to a network using a plurality of sensors, wherein the plurality of devices support the network service associated with the service level management domain, wherein the plurality of sensors are configured to

Art Unit: 2443

detect one or more events in response to a change in the operational characteristics of one or more of the plurality of devices, (e.g. col. 7, line 37 – col. 8, line 26);

6. mapping the events into one or more alarms using a plurality of monitoring agents, wherein the plurality of monitoring agents are configured to receive the events from the plurality of sensors and perform event correlation to map the events into the alarms, (e.g. col. 7, line 37 – col. 8, line 26);

7. analyzing the alarms to produce one or more correlated alarms using an alarm correlation agent, perform alarm correlation on the received alarms to produce the correlated alarms, (e.g. col. 7, line 37 – col. 8, line 26); and

8. analyzing causes of the correlated alarms across the network using an enterprise management system, (e.g. col. 7, line 37 – col. 8, line 26), but does not teach wherein the alarm correlation agent is configured to receive the alarms from the plurality of monitoring agents;

9. wherein the alarms and the correlated alarms are indicative of a degradation in a service level associated with the network service or a potential degradation in the service level associated with the network service.

10. Roytman teaches analyzing the alarms to produce one or more correlated alarms using an alarm correlation agent, wherein the alarm correlation agent is configured to receive the alarms from the plurality of monitoring agents and perform alarm correlation on the received alarms to produce the correlated alarms, (e.g., col. 2, lines 34 - 51 and col. 5, lines 13 - 55). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Roytman with Maccabee because connecting the alarm to the cause of the alarm could aid in determining errors in the system and fixing those errors.

11. Medhat teaches wherein the alarms and the correlated alarms are indicative of a degradation in a service level associated with the network service or a potential degradation in the service level associated with the network service, (e.g., col. 8, line 54 – col. 9, line 15, “... *react to any congestion that occurs, and to react when signs of impending congestion are found.*”). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Medhat with the combine systems of Maccabee and Roytman because notifying of congestion or imminent congestion conditions, could cause allocating resources more expeditiously, and forcing the bandwidth allocation system to re-arbitrate user parameters with the devices.

12. Claims 3 – 6 and 28 – 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maccabee, Roytman and Medhat as applied to claim 1, and in further view of Koperda et al. (6230203) (hereinafter Koperda).

13. As per claim 3, as closely interpreted by the Examiner, Maccabee, Roytman and Medhat teach all that is described above that is similar in scope to claim 1, Roytman further teaches reporting, to a user for display, information regarding at least one of a group including availability, faults, configuration, integrity, security, reliability, performance and accounting of the measured level of service, (e.g. col. 2, line 18 – col. 3, line 44, “*node status is propagated to application like the Solstice EM Viewer*” & col. 7, line 35 – col. 8, line 34, “*window display 600*”), but does not specifically teach determining a state of the business processes under service level management based on the monitored operational characteristics of the plurality of devices,

wherein the service level is determined as a function of the monitored operational characteristics, and wherein the service level affects the state of the business process under service level management.

14. Koperda teaches determining a state of the business processes under service level management based on the monitored operational characteristics of the plurality of devices, wherein the service level is determined as a function of the monitored operational characteristics, and wherein the service level affects the state of the business process under service level management., (e.g. col. 1, line 65 – col. 2, line 41, “*quality of play, parameters we considered include access time, delivery duration, bandwidth...*” & col. 4, lines 2 – 64, “*collects and reports statistics for level of service*”). It would have been obvious to one skilled in the art at the time the invention was made to combine Koperda with the combine system of Maccabee, Roytman and Medhat because utilizing a display to view the state of the business process could aid in a more efficient transmission system for when a transmission path is “jammed” and data needs to be redirected to a different path so the data can be delivered to its destination.

15. As per claim 4, Maccabee, Roytman and Medhat do not specifically teach determining a value for a service parameter associated with the network service as a function of the monitored operational characteristics of the plurality of devices, wherein the value for the service parameter represents the service level associated with the network service. Koperda teaches determining a value for a service parameter associated with the network service as a function of the monitored operational characteristics of the plurality of devices, wherein the value for the service parameter represents the service level associated with the network service, (e.g. col. 1, line 65 – col. 2, line

Art Unit: 2443

41 & col. 4, lines 2 – 64, “*collects and reports statistics for level of service*”). It would have been obvious to one skilled in the art at the time the invention was made to combine Koperda with the combine system of Maccabee and Roytman because of similar reasons as stated above. Furthermore, measuring the level of service aids in the determination of which alternate path data should use in the case of a congested network.

16. As per claim 5, as closely interpreted by the Examiner, Maccabee, Roytman and Medhat teach all that is described above that is similar in scope to claim 1, Roytman further teaches the value for the service parameter is determined using a component to service parameter mapping function, (e.g. col. 6, line 40 – col. 7, line 35, “*network alarms, alarm services module*” & col. 7, lines 46 – 65, “*critical, major, warning, minor...*”). It would have been obvious to one skilled in the art at the time the invention was made to combine Roytman with Maccabee and because of similar reasons as stated above.

17. As per claim 6, as closely interpreted by the Examiner, Maccabee, Roytman and Medhat teach all that is described above that is similar in scope to claim 1, Roytman further teaches determining parameters with predetermined service levels, (e.g. col. 6, line 40 – col. 7, line 35, “*network alarms, alarm services module*” & col. 7, lines 46 – 65, “*critical, major, warning, minor...*”), but does not specifically teach comparing the value for the service parameter with a predetermined service level identified in a service level management agreement;

18. determining that the service level management agreement is satisfied if the value for the service parameter meets or exceeds the predetermined service level identified in the service level

Art Unit: 2443

management agreement. Koperda teaches comparing the value for the service parameter with a predetermined service level identified in a service level management agreement, (e.g. col. 1, line 65 – col. 2, line 41 & col. 4, lines 2 – 64, “*collects and reports statistics for level of service*”);

19. determining that the service level management agreement is satisfied if the value for the service parameter meets or exceeds the predetermined service level identified in the service level management agreement, (e.g. col. 1, line 65 – col. 2, line 41 & col. 4, lines 2 – 64, “*collects and reports statistics for level of service*”). It would have been obvious to one skilled in the art at the time the invention was made to combine Koperda with the combine system of Maccabee, Roytman and Medhat because of similar reasons stated above.

20. The teachings for claims 28 – 34 can be found in the same areas as what is applied above in claim 27 and is therefore rejected for those same reasons

21. Claims 23 – 27, 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Maccabee and Roytman in further view of Koperda et al. (6230203) (hereinafter Koperda).

22. As per claim 27, as closely interpreted by the Examiner, Maccabee teaches a method for providing an entity with service level management of a business process, the method comprising the steps of:

Art Unit: 2443

23. determining at least one service that supports the business process, the at least one service associated with a service level management domain and having a state expressed as a range of numeric values representing a grade of the service, (e.g. col. 7, line 37 – col. 8, line 26);
24. collecting operational data for one or more resources coupled to a network, wherein the one or more resources support the at least one service associated with the service level management domain, the one or more resources performing one or more functions on the network to provide the service supporting the business process under service level management for the entity, (e.g. col. 7, line 37 – col. 8, line 26);
25. monitoring one or more component parameters from the operational data collected for the one or more resources, wherein the one or more component parameters represent operational characteristics of the resources supporting the at least one service provided, (e.g. col. 7, line 37 – col. 8, line 26);
26. determining the state of the service from the one or more component parameters, (e.g. col. 7, line 37 – col. 8, line 26), but does not specifically teach wherein determining the state of the service includes mapping values of the one or more component parameters to a numeric value in the range of numeric values used to express the state of the service, wherein the numeric value in the range of numeric values provides a performance index representing the grade of the service associated with the service level management domain, wherein the numeric value indicates one of at acceptable state of the service, an unacceptable state of the service, or an imminent change from the acceptable state to the unacceptable state of the service; and
27. taking an action to effect a change to one or more of the monitored component parameters in response to the numeric value indicating either the unacceptable state of the

service or the imminent change to the unacceptable state of the service, wherein the action includes issuing one or more instructions to control one or more of the resources coupled to the network.

28. Roytman teaches wherein determining the state of the service includes mapping values of the one or more component parameters to a value in the range of values used to express the state of the service, wherein the value in the range of values provides a performance index representing the grade of the service associated with the service level management domain, wherein the value indicates one of at acceptable state of the service, an unacceptable state of the service, or an imminent change from the acceptable state to the unacceptable state of the service, (e.g., col. 7, line 53 - col. 8, line 10);

29. taking an action to effect a change to one or more of the monitored component parameters in response to the value indicating either the unacceptable state of the service or the imminent change to the unacceptable state of the service, wherein the action includes issuing one or more instructions to control one or more of the resources coupled to the network, (e.g., col. 7, line 53 - col. 8, line 10). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Roytman with Maccabee because connecting the alarm to the cause of the alarm could aid in determining errors in the system and fixing those errors.

30. Koperda teaches a range of numerical values what are utilized in determining a level of service, (e.g., col. 4 & col. 11, lines 35 - 67, levels based on amount of a service). It would have been obvious to one of ordinary skill in the art at the time the invention was made to combine Koperda with the combine inventions of Maccabee and Roytman because applying a number value or the actual amount of service one will receive in a server level agreement allows a user to

determine what specific service would suit them best based on the exact number amount of service one receives, i.e., bandwidth, error rate, etc.

31. The teachings for claims 23 – 26, 35 and 36 can be found in the same areas as what is applied above in claim 3-6 and 27 and is therefore rejected for those same reasons.

Response to Arguments

32. Applicant's arguments filed 04/09/2009 have been fully considered but they are not persuasive. Applicant remarks are similar to the ones sent to the Board of Patent Appeals, which was affirmed by the Examiner. The claim amendments are similar to what was previously claimed. Therefore, the Applicant is asked to view the Board's ruling.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to DAVID E. ENGLAND whose telephone number is (571)272-3912. The examiner can normally be reached on Mon-Thur, 7:30-5:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tonia Dollinger can be reached on 571-272-4170. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

David E. England
Primary Examiner
Art Unit 2443

/David E. England/
Primary Examiner, Art Unit 2443